

### **REMARKS**

Entry of the foregoing and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.111 and in light of the remarks which follow, are respectfully requested.

By the above amendments, the title has been amended for readability purposes. Claim 23 has been amended by replacing "15" with "25," and to recite that "the amount of silica is greater than the amount of carbon black." These amendments are supported by the original language of such claim, and are consistent with the Examiner's suggestions. Claims 25 and 31 have been amended for readability purposes to recite that "the majority of elastomer in the composition is the natural rubber or synthetic polyisoprene." Claim 39 has been amended for readability purposes by inserting the word "agent" after "coupling."

In the Official Action, claims 25, 31 and 39 stand objected to for the reasons set forth at pages 2-3 of the Official Action. In an effort to expedite prosecution, claims 25, 31 and 39 have been amended in accordance with the Examiner's suggestions set forth in the Official Action. Accordingly, withdrawal of the above objection is respectfully requested.

Claims 23-28 and 35-41 stand rejected under 35 U.S.C. §112, second paragraph, for the reasons discussed at page 3 of the Official Action. As discussed above, claim 23 has been amended to recite that "said blend of carbon black and silica is in an amount between 25 phr and 50 phr," and that "the amount of silica is greater than the amount of carbon black." Such amendments have been made in view of the Examiner's comments concerning the lower limit of the amount of the blend. Accordingly, claim 23 is in full compliance with the provisions of the second paragraph of 35 U.S.C. §112, and withdrawal of the above rejection is respectfully requested.

Claims 23-26, 29-32, 35, 36, 41 and 42 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,394,919 (*Sandstrom et al*), in view of Japanese Patent Document No. 09-302146 (*JP '146*). Withdrawal of this rejection is respectfully requested for at least the following reasons.

*Sandstrom et al* does not disclose or suggest each feature recited in independent claims 23 and 29. It is noted that such claims recite that the reinforcing filler is present in the bottom zone comprising a bead, of a pneumatic tire. By comparison, the laminate of the rubber composition of *Sandstrom et al* is employed in the tire crown. This has been acknowledged by the Patent Office at page 4 of the Official Action. There is simply no disclosure or suggestion that *Sandstrom et al*'s composition is present in the bottom zone comprising a bead, of a pneumatic tire, as is presently claimed.

Furthermore, it is noted that *Sandstrom et al* fails to disclose or suggest a reinforcing filler in which the amount of silica is greater than the amount of carbon black, as recited in claim 23. Claim 29 also specifies that the reinforcing filler is precipitated or pyrogenic silica. Thus, the reinforcing filler of claim 29 does not contain carbon black. By comparison, *Sandstrom et al* discloses the use of carbon black as the primary reinforcing filler, and the use of silica as an optional component. Col. 4, lines 38-41. There is simply no recognition or suggestion of employing a reinforcing filler in which the amount of silica is greater than the amount of any carbon black, as specified in claims 23 and 29.

Furthermore, it would not have been obvious to combine *Sandstrom et al* with *JP '146* in the manner suggested. In support of such combination, the Examiner has relied on (1) *Sandstrom et al*'s disclosure of the use of a reinforcing carbon black, and (2) *JP '146*'s disclosure of the carbon black specific surface area. Official Action at page 4. Concerning (1), however, *Sandstrom et al* discloses the use of carbon black in the tire crown. The mere

disclosure of the use of carbon black in the tire crown does not suggest employing carbon black in the bottom zone comprising a bead, of a pneumatic tire. And with regard to (2), *JP '146* merely discloses that the specific surface area of the carbon black is 210-300 m<sup>2</sup>/g. This disclosure does not provide any suggestion for adding carbon black to a completely different part of the tire.

Furthermore, *JP '146* discloses using a very high total content of carbon black and silica. In the Abstract, *JP '146* discloses that the total of carbon black and silica is 50-150 parts by weight of the composition. Accordingly, *JP '146* does not suggest modifying *Sandstrom et al*'s composition to contain the amounts of silica and any carbon black recited in claims 23 and 29.

For at least the above reasons, it is apparent that the claims are not obvious over *Sandstrom et al* and *JP '146*. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 27 and 33 stand rejected under 35 U.S.C. §103(a) as being obvious over *Sandstrom et al*, in view of *JP '146*, and further in view of U.S. Patent No. 6,008,295 (*Takeichi et al*). Claims 28 and 34 stand rejected under 35 U.S.C. §103(a) as being obvious over *Sandstrom et al*, in view of *JP '146*, and further in view of U.S. Patent No. 5,844,050 (*Fukahori et al*). Claims 37-40 stand rejected under 35 U.S.C. §103(a) as being obvious over *Sandstrom et al*, in view of *JP '146*, and further in view of U.S. Patent No. 6,211,278 (*Vanel*). Withdrawal of these rejections is respectfully requested for at least the following reasons.

As discussed above, it would not have been obvious to modify *Sandstrom et al* and *JP '146* to arrive at the pneumatic tire recited in each of claims 23 and 29.

*Takeichi et al*, *Fukahori et al* and *Vanel* fail to cure the above-described deficiencies of *Sandstrom et al* and *JP '146*. The Patent Office has relied on *Takeichi et al* for disclosing

the use of silicon or tin halide modified diene elastomer, on *Fukahori et al* for disclosing a diene elastomer comprising a majority of cis-1,4 bonds, which is branched using divinylbenzene, and on *Vanel* for disclosing the use of a covering agent that is alkoxyalkyl silane. Official Action at pages 5-6.

However like *Sandstrom et al*, the above applied documents fail to disclose or suggest a reinforcing filler in which the amount of silica is greater than the amount of any carbon black, as specified in claims 23 and 29. And certainly, such documents do not provide any suggestion for combining *Sandstrom et al* with *JP '146*.

Accordingly, for at least the above reasons, withdrawal of the rejections is respectfully requested.

Claims 23-25, 29-31, 35, 36 and 37 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,776,206 (*Segatta et al*) in view of *JP '146*. Withdrawal of this rejection is respectfully requested for at least the following reasons.

*Segatta et al* does not disclose or suggest each feature recited in independent claim 23. For example, *Segatta et al* does not disclose or suggest a reinforcing filler that is a blend of carbon black having a BET specific surface area of between 30 and 160 m<sup>2</sup>/g and of precipitated or pyrogenic silica having a specific surface area of between 30 and 260 m<sup>2</sup>/g, wherein the amount of silica is greater than the amount of carbon black, and wherein said blend of carbon black and silica is in an amount between 25 phr and 50 phr, and wherein the amount of silica is from 25 phr to 40 phr. *Segatta et al* simply has no disclosure or suggestion of the recited amounts of silica and carbon black.

By comparison, at column 4, lines 3-5, *Segatta et al* discloses that "Silica, if used, may be used in an amount of about 5 to about 25 phr" (emphasis added). *Segatta et al* discloses examples using carbon black as the major filler, i.e., alone without silica. See

Example 1; column 5, line 30. According to *Segatta et al*, the examples without silica provided desirable green strength properties. Col. 6, lines 23-27.

*Segatta et al* also discloses examples containing silica (see Example 2; column 6, lines 46-49), but only in a minor fraction of the composition. Thus, *Segatta et al* only discloses using either no silica, or only a minor fraction of silica, in the compositions. That is, according to *Segatta et al*, silica is an optional component, and compositions that do not contain silica provide desirable properties. Moreover, even if silica is added, it constitutes only a minor proportion of the *Segatta et al* composition, as compared to the higher amount of carbon black, such as the preferred range of 30-60 phr. Col. 3, lines 66-67. *Segatta et al* does not suggest that the amount of silica is greater than the amount of carbon black, the blend of carbon black and silica is in an amount between 25 phr and 50 phr, and the amount of silica is from 25 phr to 40 phr, as recited in claim 23.

As discussed above, *JP '146* discloses using a very high total content of carbon black and silica. In the Abstract, *JP '146* discloses that the total of carbon black and silica is 50-150 parts by weight of the composition. Accordingly, *JP '146* does not suggest modifying *Segatta et al*'s composition to contain the amounts of silica and carbon black recited in claim 23.

*Segatta et al* also fails to disclose or suggest each feature recited in independent claim 29. In this regard, claim 29 recites that "the reinforcing filler is precipitated or pyrogenic silica having a specific surface area of between 30 and 260 m<sup>2</sup>/g" (emphasis added). That is, silica is the sole reinforcing filler in such claim. In stark contrast, *Segatta et al* discloses that silica is optional. To the extent that the Patent Office has taken the position that *Segatta et al*'s disclosed carbon black additive material is a reinforcing filler, *Segatta et al* does not

suggest adding silica, but not also carbon black, as a reinforcing filler in the disclosed composition. Accordingly, the applied art also does not suggest the tire recited in claim 29.

For at least the above reasons, withdrawal of the rejection based on *Segatta et al* and *JP '146* is respectfully requested.

Claims 26, 27, 32 and 33 stand rejected under 35 U.S.C. §103(a) as being obvious over *Segatta et al* in view of *JP '146*, and further in view of *Takeichi et al*. Claims 26, 28, 32 and 34 stand rejected under 35 U.S.C. §103(a) as being obvious over *Segatta et al* in view of *JP '146*, and further in view of *Fukahori et al*. Claims 38-40 stand rejected under 35 U.S.C. §103(a) as being obvious over *Segatta et al* in view of *JP '146*, and further in view of *Vanel*. Claims 41 and 42 stand rejected under 35 U.S.C. §103(a) as being obvious over *Segatta et al* in view of *JP '146*. Withdrawal of the above rejections is respectfully requested for at least the following reasons.

As discussed above, it would not have been obvious to modify *Segatta et al* and *JP '146* to arrive at the pneumatic tire recited in each of claims 23 and 29. *Takeichi et al*, *Fukahori et al* and *Vanel* fail to cure the above-described deficiencies of *Segatta et al* and *JP '146*. Like *Segatta et al*, the above applied documents fail to disclose or suggest a reinforcing filler in which the amount of silica is greater than the amount of any carbon black, as specified in claims 23 and 29. And certainly, such documents do not provide any suggestion for combining *Segatta et al* with *JP '146*.

Accordingly, for at least the above reasons, withdrawal of the §103(a) rejections is respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited. If there are any

questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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